

CONSERVATION FINDINGS/SILO RIDGE FIELD CLUB

Baseline Conditions:

The Silo Ridge Field Club (the “Modified Project” or “Silo Ridge”) is located in two distinctive eco-regions. The low-lying portions of the site are located within the Western New England Marble Valley eco-region. This is an area characterized by steep-sided valleys with floodplains, terraces, and rolling to hilly terrain with springs, seeps, and wetlands. The underlying bedrock is calcareous with an overburden of glacial till. The remainder of the Property is located within the Taconic Foothills eco-region, characterized by rocky steep slopes with narrow valleys dominated by Appalachian oak-hickory forest. The site is located at an ecological crossroads between the Hudson Valley to the west, the Hudson Highlands to the south, and the Berkshire and Taconic regions to the northeast.

Priority habitats identified within the Western New England Marble Valley eco-region include contiguous forests, streams, and wetlands, as well as calcareous fens and wetlands. Priority habitats identified in the Taconic Foothills eco-region include contiguous forests, seasonal woodland pools, grasslands and streams. All these diverse habitat types are present on at Silo Ridge.

The Modified Project contains approximately twenty acres of prime or statewide important farmland soils, which are important for the production of food, feed, forage and fiber crops, as defined by the United States Department of Agriculture.

The Modified Project is located within the watershed of Wassaic Creek, a tributary of the Ten-mile River, which drains into the Housatonic River. The site contains approximately 25 acres of New York State Freshwater Wetland No. AM-15, which is a Class II wetland, designated pursuant to Article 24 of the Conservation Law. The Modified Project also encompasses the 100-foot adjacent area for AM-15. Approximately 33 acres of wetlands identified on the National Wetlands Inventory by the United States Department of the Interior have been mapped at Silo Ridge, as well as a variety of constructed wetlands associated with the former golf course.

The Modified Project contains two unnamed Class C streams (Conn-15-11-2-1a) and (Conn-15-12-1), both of which are tributaries to Amenia/Cascade Brook/Wassaic Creek. Both of these unnamed streams have been classified by the New York State Department of Environmental Conservation in accordance to their best use for fishing and fish propagation. Amenia/Cascade Brook borders the eastern edge of the site, roughly parallel to NYS Route 22. Approximately 11.6 acres of the Modified Project lies within the 100-year flood plain of the Amenia/Cascade Brook as designated by the Federal Emergency Management Agency (FEMA).

A portion of the Modified Project, approximately 134 acres, is part of a “Zone I” Aquifer Recharge Area, an area of permeable deposits directly overlying the aquifer through which water can move downward with little or no natural filtration because the water is moving too quickly. In addition, approximately 38 acres is part of a “Zone II” Aquifer Recharge Area, an area of less permeable

deposits located up-gradient from an aquifer, which contributes to recharge to the aquifer through both overland runoff and groundwater flow. These Aquifer Recharge Areas are defined by the *Dutchess County Water Supply Protection Program Report* prepared by Horsley, Witten, Inc., in 1993 for the Dutchess County Water and Wastewater Authority.

The Modified Project contains approximately 266 acres of woodlands that are part of a relatively unbroken tract of forest lands that extend for hundreds of acres beyond the Property boundaries and represents valuable habitat as a large block of contiguous un-fragmented forest. These forested areas connect directly to several thousand acres of forest located on the adjacent Tamarack Preserve.

The Modified Project is located within the Harlem Valley. The 2009 New York State Open Space Conservation Plan prepared by the Department of Environmental Conservation, the Office of Parks, Recreation and Historic Preservation, and the Department of State (the “NYS Plan”) lists the Taconic Ridge/Harlem Valley as a high priority due to the region’s high biodiversity, scenic views, substantial recreational value, thousands of acres of un-fragmented forest, steeply sloping hillsides, unique geologic features, historic architecture, and multiple opportunities to connect lands currently protected by state, federal, county, town, and private conservation organizations. Specific target areas for the NYS Plan include connectors to the Harlem Valley Rail Trail, and viewshed protection especially along the NYS Route 22 corridor view-shed protection.

Significant Habitats in the Town of Amenia (compiled by Hudsonia) has identified numerous habitat types at Silo Ridge including, upland hardwood forest, upland mixed forest, upland shrub land, upland meadow, mixed forest swamp, hardwood and shrub swamp, marsh, an intermittent woodland pool, and open water.

The extensive documentation of biological and botanical surveys and corresponding analyses provided by DEIS and FEIS process, as well as the supplemental EAF submissions to those documents, provided additional detailed site-specific data that supports the value of the Modified Project site for biodiversity. In totality, these baseline studies constituted the Conservation Analysis of Silo Ridge as required by 121-20 A of the Amenia Zoning Law adopted July 19, 2007.

Conservation Findings:

121-20-A-4 of the Amenia Zoning Code requires the preparation of written findings. The baseline conditions previously described form the foundation upon which to fashion a development project on the site which protects those baseline conditions while allowing a reasonable use of the site. The Amenia Planning Board has carefully considered these baseline conditions and finds that the proposed Modified Project will protect those core ecological values as identified in the baseline conditions for the following reasons:

The Modified Project, in accordance with sound ecological development practices, clusters 63 percent of the development in portions of the site that had been previously disturbed over the last decades. This is therefore not considered *denovo* development from an ecological and conservation perspective, but actually re-development of that portion of the site. Not only is approximately two-

thirds of the project footprint on these previously disturbed areas, but the bulk of the project's intense land uses (dense housing and recreation) are located there. A much smaller amount of the development (37 percent) or roughly one-third, is located in areas that were undisturbed. That development is restricted to single family homes with significant amounts of forest remaining between each lot because of the application of restrictive disturbance and building envelopes.

No natural wetlands were lost as part of the project, and the buffering, by planting native vegetation alongside watercourses to a width of thirty feet or greater, improves ecological function and water quality. While many wetlands and watercourses were augmented in this manner, Amenia/Cascade Brook was the most notably benefited by this type of ecological and functional improvement. Constructed wetlands were expanded by several acres, increasing the storm water detention capacity of the site. Buffering of these constructed wetlands was enhanced. Three vernal pools on the ridge are protected by following the standards set forth in Calhoun and Klemens (2002) where no development is permitted in the vernal pool envelope (0-100 feet from each pool), and no more than 25% of the forest may be disturbed within the critical upland habitat zone (100-750) feet from each pool.

The entire site is governed by two DEC regulated storm water prevention programs (i.e., the SWPPPs) which ensures that the storm water quality and quantity, flows and volumes, are appropriately managed. The runoff from the entire Modified Project is managed for East of Hudson water quality standards. These standards are normally employed to maintain higher water quality within the public water drinking supply of the Croton Reservoir system. In the case of the Modified Project these standards are being used as mitigation to ensure that the water quality is sufficiently pure to allow the NYS listed Hill's Pond Weed to continue to flourish in wetland AM-15.

In the design of the Modified Project, attention was given to maintaining the vertical (across an elevation gradient) ecological porosity of the site. This will allow, over time, both vegetation and wildlife to move between the valley floor and the ridge and vice versa. This type of movement will be essential with the advent of climate change, as it allows biodiversity to readjust to changing climatic conditions without impediments to dispersal. Attention was given to maximizing ecological connections through the golf course open space by fully spanning with timber bridges streams and wetlands. Restoration and expansion of floodplain areas further increases the resiliency of these watercourse corridors to respond to the more frequent, heavy pluvial events that are a result of the changing climatic patterns as well as enhancing their utility for wildlife habitat and dispersal.

A commitment to using native vegetation throughout the site to the maximum extent practical with landscape design has been implemented. There is a detailed zonal system using well-defined cells and mixes (also referred to as planting palettes in the Habitat Management Plan) in those areas adjacent to natural areas and receiving waters. These areas are restricted solely to the use of native plants, whereas in the development area (primarily in the previously disturbed portions of the site) there is more flexibility as to the use of plant species, and non-native species are permitted for ornamental landscaping. Invasive plant species are prohibited from being planted anywhere on the

site. A list of invasive species has been prepared for this project, and there is the expectation that this list will be amended as new species are identified as invasive.

A conservation easement of no less than 536 acres (80% of the total site) will be donated to a qualified conservation organization such as a land trust or similar group. The recipient of this conservation easement must have a demonstrated commitment to the conservation of this site as well as the staff capacity to effectively manage the long term conservation needs of an easement of this size and complexity. Recognizing that there are distinctive management needs for various portions of the property, the easement holder will be required to develop a management strategy that recognizes different uses (and potential stresses) between areas such as the golf course open space, the non-golf course open space, and the natural woodland open space. The Planning Board finds that there is considerable value in having the entire Silo Ridge conservation easement held by a single entity. By holding these types of open space within a single easement, the easement holder will be able to monitor and ensure that the myriad of ecological values, including those of connectivity and porosity, will be maintained in perpetuity.

The Dutchess County Master Plan, *Directions*, adopted by the Dutchess County Legislature in 1988, has identified the area in which the Property is located as an area in which agricultural lands, open space, steep slopes, and streams and wetlands should be preserved. *Directions* contained a variety of policy statements which have been considered by the Amenia Planning Board in its conservation analysis of the Silo Ridge development as follows:

Policy 5.14 advocates the protection of wetlands and their buffers from development activities. Policy 5.15 encourages municipalities to preserve their 100-year floodplains by prohibiting uses that interfere with the flood-carrying functions of the floodplain, create safety hazards, or increase the risk of property damage. Policy 5.16 supports measures to preserve the county's prime and important agricultural soils. Policy 5.19 advocates the preservation of steep slopes and ridgelines. Policy 5.20 advocates the preservation of the county's scenic resources and significant natural areas. Policy 5.23 encourages the protection and recognition of uncommon or especially-sensitive forest resources, such as hemlock groves, forests with particularly large trees, beech woods, and the woodland buffers around water bodies, wetlands and roadways. Policy 5.24 encourages the preservation of woodland "greenbelt" corridors through communities, especially along streams, floodplains, wetlands, and other sensitive areas, to provide recreational space, wildlife habitat, natural buffers and aquifer protection. Policy 7.11 encourages the provision of open space areas and greenbelt corridors as a fundamental land use that is carefully planned as part of the land use pattern. Policy 7.13 discourages the subdivision of prime and important agricultural soils and large forested tracts into lots which preclude the future use for agriculture and forestry. Policy 11.3 encourages the use of innovative development techniques, such as planned unit development, conservation easement and cluster subdivision, to provide recreational areas and facilities at minimal public cost. Policy 11.18 encourages the maintenance of open space as a technique for preserving unique ecological features, such as floodplains, wetlands, steep slopes and major aquifers. Policy 11.21 supports the use of conservation easements to preserve open space in rural areas. The Resort

Community meets all of these policies. These policies are echoed in 121-20 K of the Armenia Zoning Law (adopted July 19, 2007).

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